DOCUMENT RESUME

ED 134 683 CE 008 641

AUTHOR Sjodahl, Lars
TITLE Choice of Aspects for Describing Work in Educational Planning. Didakometry. No. 51, August 1976.
INSTITUTION School of Education, Malmo (Sweden). Dept. of Educational and Psychological Research.
PUB DATE Aug 76
NOTE 26p.

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS *Critical Incidents Method; Curriculum Development; Educational Planning; Forestry Occupations; *Job Analysis; *Occupational Information; Rating Scales; *Reliability; *Research Methodology; *Task Analysis; Vocational Education

ABSTRACT

Criteria are proposed and discussed for the choice of descriptors to be used in developing task analyses for use in vocational educational planning. In order to examine the possibilities of achieving stable ratings in some suggested job aspects (categories), a work operation (shortwood logging) is analyzed into 17 units which in turn are described in 10 aspects by means of ratings from 140 forestry teachers in the Swedish gymnasium/school. Five of the 10 aspects (work aspects) refer directly to the job while the remaining five aspects (pedagogical aspects) concern the students' possibilities of receiving natural feedback in the learning situation. A profile is presented for each aspect showing the medians for all the 17 units. The structure of these profiles is shown to be more stable for the work aspects than for the pedagogical aspects when the size of the judging group is varied. The correlations between work aspects and their corresponding pedagogical aspects are found to be negative. The author concludes with a suggestion for the use of the results for educational planning. (Author/JT)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

special-topic
bulletin from

DEPARTMENT OF
EDUCATIONAL AND
PSYCHOLOGICAL RESEARCH

SCHOOL OF EDUCATION
MALMÖ, SWEDEN

didakometry

Sjödahl, L.:

CHOICE OF ASPECTS FOR DESCRIBING WORK
IN EDUCATIONAL PLANNING

No. 51 August 1976

CE 008 641

CHOICE OF ASPECTS FOR DESCRIBING WORK IN EDUCATIONAL PLANNING

Lars Sjödahl

Sjödahl, L. Choice of aspects for describing work in educational planning. Didakometry (Malmö, Sweden: School of Education), No. 51, 1976.

The purpose of the present article is to propose and discuss certain criteria for the choice of descriptors when describing work in educational planning. In order to examine the possibilities of achieving stable ratings in some suggested aspects, a work operation (short-wood logging) has been analysed into 17 units which in turn have been described in 10 aspects by means of ratings from 140 forestry teachers. Five of the 10 aspects (work aspects) refer directly to the job while the remaining five aspects (pedagogical aspects) concern the students' possibilities of receiving natural feedback in the learning situation. A profile is presented for each aspect showing the medians for all the 17 units. The structure of these profiles is more stable for the work aspects than for the pedagogical aspects when the size of the judging group is varied. The correlations between work aspects and their corresponding pedagogical aspects are negative. The article concludes with a suggestion for the use of the results for educational planning.

Keywords: Educational planning, critical incident, forestry training.

INTRODUCTION

In order to plan efficient vocational training it is necessary to have a clear grasp of the relevant job demands. It is therefore of great importance to develop methods for describing work operations in a way that will give the educational planner useful information. Useful information means in this connection, that the work descriptions can be used in the following contexts:

1. When selecting training goals.
2. When stating and communicating the training goals.
3. When selecting training content.
4. When constructing training material.
5. When selecting or developing training methods.
6. When constructing relevant measuring instruments for evaluation of the training.
7. When coordinating different levels of training goals.

A job or work operation can be described in so many different ways that one is always forced to make a choice among many aspects of description. Mårdberg & Baneryd (1971) present a well thought-out model which gives a basis for deciding which description aspects are the important ones. A basic idea of the authors is that a theory of how the individual functions should guide the researcher in his selection of descriptors. Mårdberg & Baneryd (1971) state:

"The ideal model for job descriptions should integrate elements from all the relevant functions described in the theory of the individual. For every application of the model you must be able to ask yourself which functions or processes are activated and which demands these activities place on the design of the job. Moreover, it is equally important to inquire which demands the job places on the individual. Such a model leads automatically to a need for cooperation between those responsible for the psychological, social and medical aspects of personnel administration. In the work analysis the theory of the individual should be a guide for which units in the job are of special interest and how these units should be observed." (p. 39).

The model that Mårdberg & Baneryd present is, however, not primarily intended for educational planning. For the educational planner it is of value if the job-demands analysis is based on a model than even satisfies the following points of view:

1. The model should be so complex that it takes into account the interaction between the student and the training situation.
2. The model should be easy to integrate with the widely used paradigm that encompasses the following three main components:
   a. Goal seeking and goal description

b. Carrying out the training process.

c. Evaluation and revision of the training programme.

3. The model should give proper regard to the laws of learning. These laws should be taken into account not only during the actual training process but already at the stage of seeking and describing the job demands and the training goals.

4. The model should give proper regard to values and norms generally accepted, e. g.

   a. Accident risks should be prevented.

   b. Consideration should be paid to the fact that every working individual should be given the opportunity to experience a certain amount of personal development and satisfaction in his work.

   c. Consideration should be paid to the fact that people are different in many respects.

5. Research inspired by the model should lead to interesting and relevant information for those who are planning and executing training.

PROBLEMS

The choice of descriptors depends partly on the job chosen to be studied and it probably deserves great attention. It seems easy to forget definitions and specifications of suitable aspect areas when applying models for job descriptions. An irrelevant choice of description aspects can be one of the reasons why the educational planner often experiences a barrier between the goal-seeking phase and the planning of the training process. Teachers within vocational and technical training are usually guided in their teaching by the following five demands, all having to do with the work process:

1. A job should be carried out so that the result satisfies certain demands for quality.
2. A job should be carried out so that risks for personal injury are reduced to a minimum.
3. A job should be carried out so that the result does not cause disturbance or extra work during the subsequent job units.
4. A job should be carried out in such a way that excessive physical strain is avoided as far as possible.
5. A job should be carried out in a rational way from the point of view of production quantity.

It is reasonable to expect vocational teachers to be interested in job descriptions which emanate from these general norms or demands. The

demands stated above have therefore been transformed into the following description aspects:

A. To what extent does the value of the work product decrease if the job unit is carried out in a faulty way?

B. How great a risk is there for personal injury if the job unit is carried out in a faulty way?

C. To what extent does a faulty way of carrying out the job unit lead to disturbance or extra work under subsequent job units?

D. To what extent does the worker run the risk of physical strain if the job unit is carried out in a faulty manner?

E. To what extent is production affected quantitatively if the job unit is carried out in a faulty way?

The relevance of job descriptions is increased for teachers and educational planners if descriptors also concern the actual learning or training process. It would be excessive to make a list in this article of all the laws of learning that could be of interest to transform into description aspects. The following text is therefore confined to what is probably the most important principle of learning - the law of effect. This law states that learning is often facilitated when the learner receives immediate information about the result, the consequence of his behaviour. The student's possibilities of making relatively quick judgement of whether he is on the right or wrong track is therefore an important factor in the process of learning. It is the law of effect that has been most successfully applied when drawing up programmed learning. With more conventional teaching the principle of feedback to the student is applied by use of diagnostic observation or control which aids the teacher in directing his own teaching and the student's learning.

In order to plan the teacher's diagnostic observation and control it should be of value to know which job units are of such a character that the student himself is going to have difficulty in evaluating his own performance. Job units very likely differ with regard to the student's possibilities for carrying out such self-evaluation. The following example may help to clarify the point. When starting a power saw there will be very concrete and immediate evidence of the efficiency of the operator's behaviour- either the saw starts or not. An outdoor exercise, on the other hand, where the student plans how to fell a whole group of trees does not give him immediate, natural feedback. Only first when the student has the opportunity to learn how the subsequent primary conversion and dragging together of the timber is facilitated or complicated by his earlier planning does the law of effect come into the picture in a natural way. The time interval between the planning exercise and the subsequent conversion and

dragging together will however in this case be so long that we risk ignoring or getting into conflict with another important law of learning that states that learning is facilitated when the time interval is fairly short between the exercise and the experience of its consequences. Therefore there is a need for artificial feedback in close connection with the student's felling exercise i. e. teacher-guided diagnostic control. It is thus highly relevant that a job is also described with respect to the possibilities of different units providing natural, immediate feedback. Accordingly the law of effect has been transformed into the following description aspects:

F. What are the student's possibilities of immediately observing himself when the job unit is performed in such a way that the value of the work product is not reduced?

G. What are the student's possibilities of immediate self-observation and self-judgement when the job unit is performed with proper regard to safety precautions?

H. What are the student's possiblities of immediate self-observation and self-judgement when the job unit is carried out without giving cause to disturbance or extra work in the subsequent work units?

I. What are the student's possiblities of self-observation and self-judgement without delay when the job unit is carried out in the best way with regard to preventing excessive physical strain?

J. What are the student's possibilities of immediate self-judgement when he uses a rational work-technique (= giving high quantity) when carrying out the job unit?

These last five aspects (F-J) correspond to the first five aspects (A-E) in the manner depicted in figure 1.

METHOD

The information sought about the job units for the purpose of planning training can be gained by different methods, for example by direct observation, interviewing or with the help of questionnaires. In the present study the rating questionnaire is chosen. This method makes it possible to reach a large number of respondents and to describe quantitatively and systematically opinions of groups whose experience should be taken into account when planning and carrying out training. The value of such ratings depends partly, however, upon the reliability of the rating results. Some rating aspects may be too difficult to communicate in unambiguous language and consequently there will be much room for individual interpretations of the rating task among the respondents. Reliability in this context means that the results should not change to any considerable extent when we

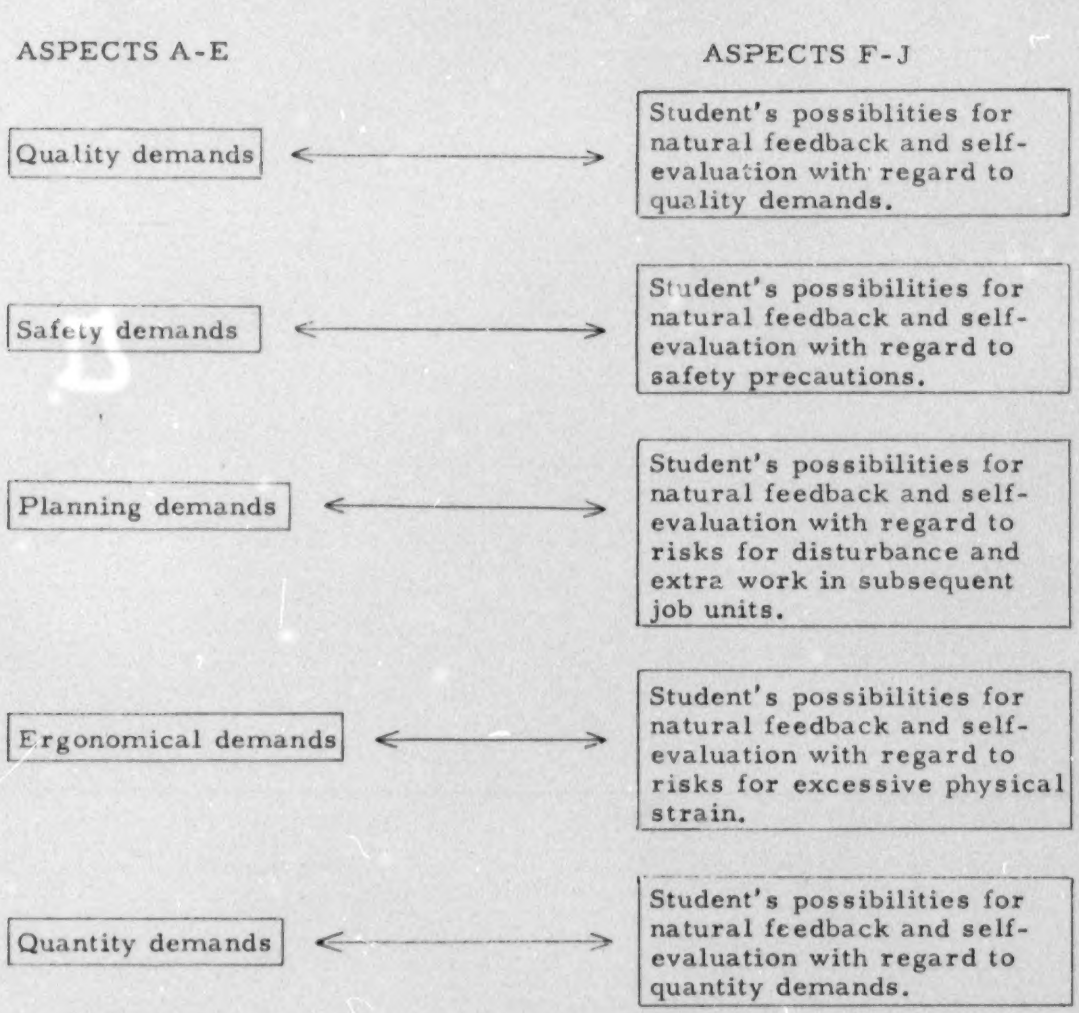
ASPECTS A-E
ASPECTS F-J
Quality demands
Student's possiblities for natural feedback and self-evaluation with regard to quality demands.
Safety demands
Student's possibilities for natural feedback and self-evaluation with regard to safety precautions.
Planning demands
Student's possibilities for natural feedback and self-evaluation with regard to risks for disturbance and extra work in subsequent job units.
Ergonomical demands
Student's possibilities for natural feedback and self-evaluation with regard to risks for excessive physical strain.
Quantity demands
Student's possibilities for natural feedback and self-evaluation with regard to quantity demands.

Fig. 1 Summary of description aspects

increase the number of raters. In order to test if it is at all possible to get fairly stable results for the ten aspects presented above, a work operation within forestry (short-wood logging) is analysed into 17 units which in turn are described in the ten aspects (A-E and F-J) by means of ratings from 140 teachers of forestry in the Swedish gymnasium school. The 17 job units are listed below in their natural sequence:

1. To plan the felling of a group of trees.
2. To clear obstacles from the planned conversion site.
3. To plan the felling direction of the single tree.
4. To plan the way of retreat.
5. To clear obstacles from around the tree to make a free place to work in and a way of retreat.

6. To trim away obstructing branches from the tree that is to be felled.
7. To saw the undercut.
8. To saw the felling cut.
9. To fell the almost sawn-through tree.
10. To move out of the risk zone when the tree falls.
11. To trim the upper side of the trunk.
12. To measure the assortment.
13. To turn the trunk for trimming the under-side.
14. To move the trunk towards the place for the timber pile.
15. To trim the under-side of the trunk.
16. To crosscut the trunk.
17. To move and pile the timber.

For each of the ten aspects a rating questionnaire was constructed as illustrated in figures 2 and 3.

ASPECT B

The student's possibilities to observe and judge himself without delay if the job unit is performed with proper regard to safety are:

Job unit.

1. To plan the felling of a group of trees

very small	( ) 1
small	( ) 2
fairly great	( ) 3
great	( ) 4
very great	( ) 5

Fig. 2 Example of rating questionnaire

ASPECT G

How great a risk is there for personal injury if the job unit is carried out in the wrong way?

Job unit.

1. To plan the felling of a group of trees

very great risk	( ) 1
great risk	( ) 2
fairly great risk	( ) 3
small risk	( ) 4
very small risk	( ) 5

Fig. 3 Example of rating questionnaire

The ten rating forms have been answered by all the teachers of the subject short-wood logging in the Swedish gymnasium school course in forestry i. e. 140 forestry teachers. The study is, with regard to the respondents, thus a population study. All the teachers were given the following written instructions:

" When planning training programmes it is of the utmost importance for a good training result to take the laws of learning into consideration. One of the most important learning laws is called the law of effect. This law states that learning is usually facilitated when the student receives some knowledge or evaluation of his results fairly soon after his trials. The pupose of the present study is to examine the possibilities of selecting and describing those job units which are of such a character that the students themselves can be expected to find it difficult to evaluate the result of their own exercises. The work operation selected for this study, short-wood logging, has been devided into 17 job units. For each job unit you are asked to rate:

1. The students' possibilities for immediate self-evaluation.
2. Some characteristics of the actual job unit e. g. accident risks.

It goes without saying that it may be a difficult task to give the term 'immediate self-evaluation' an exact meaning. When rating the job units you are, however, asked to compare the units with each other. Such relative judging is possible to carry out without giving the phrase 'immediate self-evaluation' an exact definition. Below are given two examples showing how your judging is to be carried out with the help of simple rating scales.

Example 1.

Aspect: The student's possibilities for immediate self-observation and self-judgement when the job unit is performed in such a way that the value of the work-product is not reduced are:

Job unit: Root pruning

Very small	( ) 1
Small	(X) 2
Fairly great	( ) 3
Great	( ) 4
Very great	( ) 5

In this example the teacher is of the opinion that the student's possibilities for immediate self-evaluation are small so he has put a cross in the bracket corresponding to the scale interval 2. A student can go on almost forever cutting roots too much or too little without getting any impulse to change his incorrect pruning. Still, he has visual impressions of the plants before and after pruning and in a certain sense it is therefore possible for him to see the effects of his behaviour. This possibility for some natural feedback makes it reasonable not to give the lowest rating point to this job unit.

Example 2.

Aspect: The student's possibilities for immediate self-observation and self-judgement when the job unit is performed without giving cause for disturbance or extra work in the subsequent job units are:

Job unit: To lift the soil core from the planting hole

Very small	( ) 1
Small	( ) 2
Fairly great	( ) 3
Great	( ) 4
Very great	(X) 5

In this example the student will have immediate, natural feedback. If the job unit is erroneously performed the student will get into difficulties when trying to carry out the next job unit, i. e. to put the plant in the hole - the hole will be too big or too small. In either case the student will find it awkward to get on with this job unit. This is the reason why the scale value 5 has been considered to be the appropriate rating.

Make sure you understand the rating aspects before you start the actual rating. Please do not discuss your opinions and ratings with other teachers. It is your own personal judgement we are interested in. In all your ratings the student is presumed to be in the beginning of his training. Please observe that the 10 rating forms, one for each aspect, are to be completed in the order given below:

Order	Form indication	Order
1	G B	6
2	C H	7
3	A J	8
4	E D	9
5	F I	10 "

The instructions thus end with a request to answer the ten forms in a predescribed order which varies randomly between the respondents. The reason for this randomization is to balance possible systematic effects caused by fatigue or position.

RESULTS

The five aspects (A-E) will be called work aspects while the remaining five aspects (F-J) are referred to as pedagogical aspects as they all concern the student's possibilities for self-evaluation and self-control. For each aspect the median ratings have been calculated for all of the 17 job units. The results are presented graphically as profiles in figures 4 and 5. From these two figures it is obvious that the ratings differentiate far more for the work aspects than for the pedagogical aspects.

The inter-rater reliability has been studied in the following way. From the population of 140 teachers samples of varying sizes were randomly drawn. For each fixed size of the sample this selection procedure was carried out without replacement. The median values for the 17 job units were calculated for each sample of raters and the structure of the median series from samples of the same size was compared by estimating the rank correlation between the compared series. Table I presents for different sample sizes the number of groups compared, the number of rank correlations as well as the average correlation in each of the ten aspects.

The term "reliability" can be defined in many ways and a given definition of the term can have a number of different operational meanings depending upon which method is used when checking the reliability. (Lord & Novick, 1968.) In this investigation the stability of the structure of the median series has been studied as a function of the size of the judging group. The result is illustrated graphically in figure 6. The curves for the work aspects lie collected in a cluster above the more sharply rising curves for the pedagogical aspects.

Table I. Structural comparisons between median series from rater samples of the same size and for varying sizes of the rater sample

Size of group	No. of groups	No. of rank corr:s	Average rank correlation for aspects A-J									
			A	B	C	D	E	F	G	H	I	J
10 teachers	14	91	.82	.82	.83	.84	.82	.40	.42	.31	.30	.38
20 "	7	21	.89	.87	.89	.92	.89	.43	.64	.42	.42	.53
30 "	4	6	.93	.93	.91	.87	.95	.63	.73	.65	.58	.55
40 "	3	3	.93	.92	.94	.97	.92	.56	.87	.68	.58	.74
50 "	2	1	.93	.95	.94	.96	.98	.80	.86	.82	.79	.74
60 "	2	1	.91	.98	.98	.97	.96	.79	.85	.81	.73	.76
70 "	2	1	.94	.95	.92	.99	.95	.79	.86	.84	.68	.49

As shown in table I and figure 6 there is a general trend for the correlations to increase when the size of the rater group increases. The inter-judge correlations are very high for the five work aspects (A-E). For n=70 the correlations are ≥ 0.92. The ratings from the pedagogical aspects (F-J) are, however, far more subjective and consequently more dependent on the size of the rater group. It is easy to see that an idealized curve drawn through the five curves for the pedagogical aspects will give an exponential function with an asymptote considerably below unit, meaning that validity problems are also invcived in the study of inter-rater agreement for these aspects. One possible reason for the fairly low correlations in the pedagogical aspects when $n \leq 40$ might be the fact that the compared profiles are moderately differentiating as can be seen from figure 5. Not until the size of the judging group increases to 50 do some correlations approach a level (≈ 0.80) acceptable for research purposes. It is very likely that the ratings in the pedagogical aspects would have been more differentiating and thereby also less subjective if students had been chosen as raters. Since the aspects F-J concern the students' situation, ratings from students in these aspects would have been a highly relevant complement to this study. A comprehensive presentation of possible information sources, when seeking goals for vocational education or training is given in Sjödahl (1974).

In order to describe the similarity of structure between the five median series for the work aspects A-E as well as between the five pedagogical aspects, F-J, Kendall's concordance coefficient has been calculated (see Siegel, p. 231). For the work aspects this coefficient is 0.41 and for the

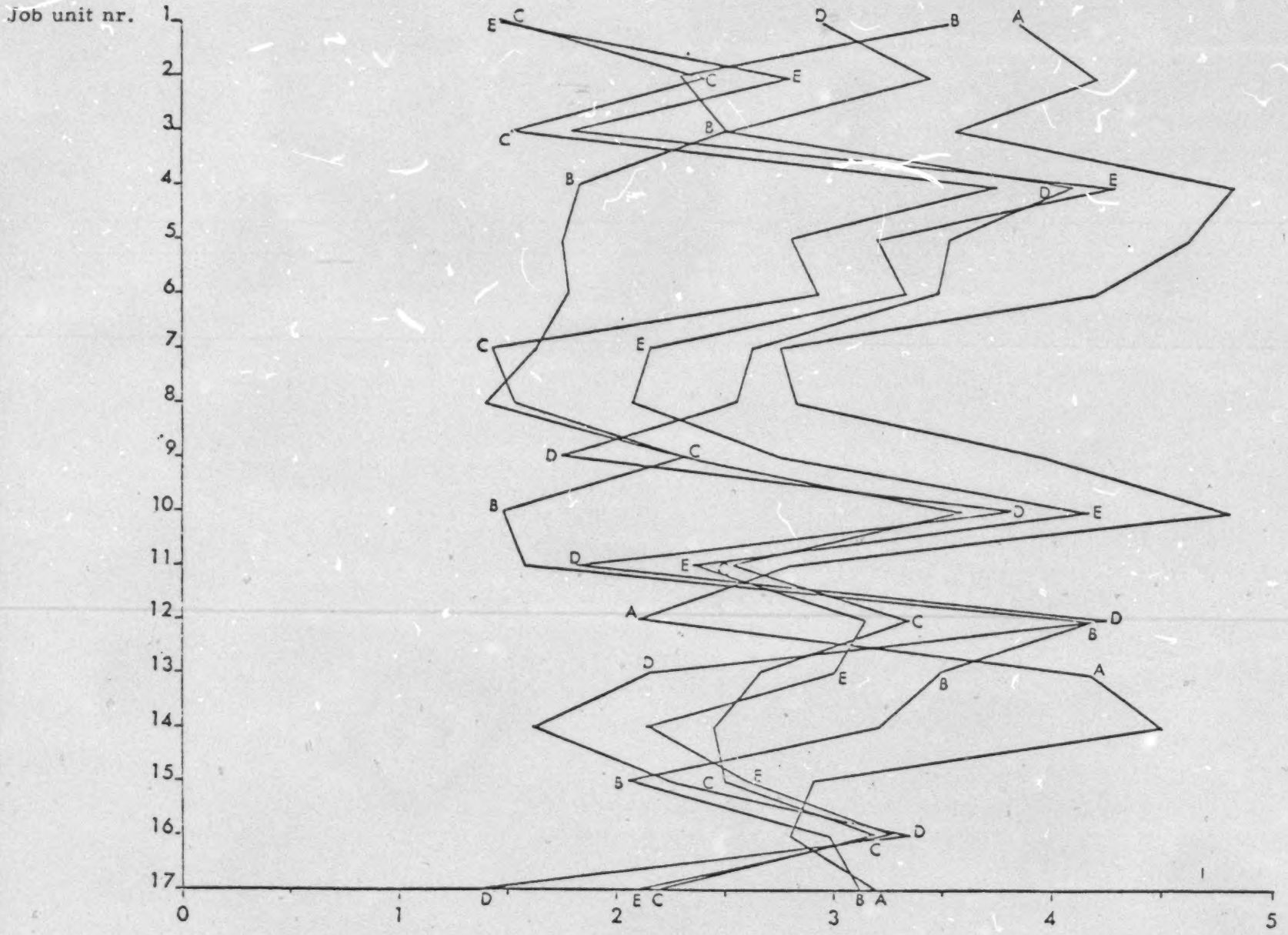

Fig. 4. Median values for the 17 job units in the five work-aspects A-E

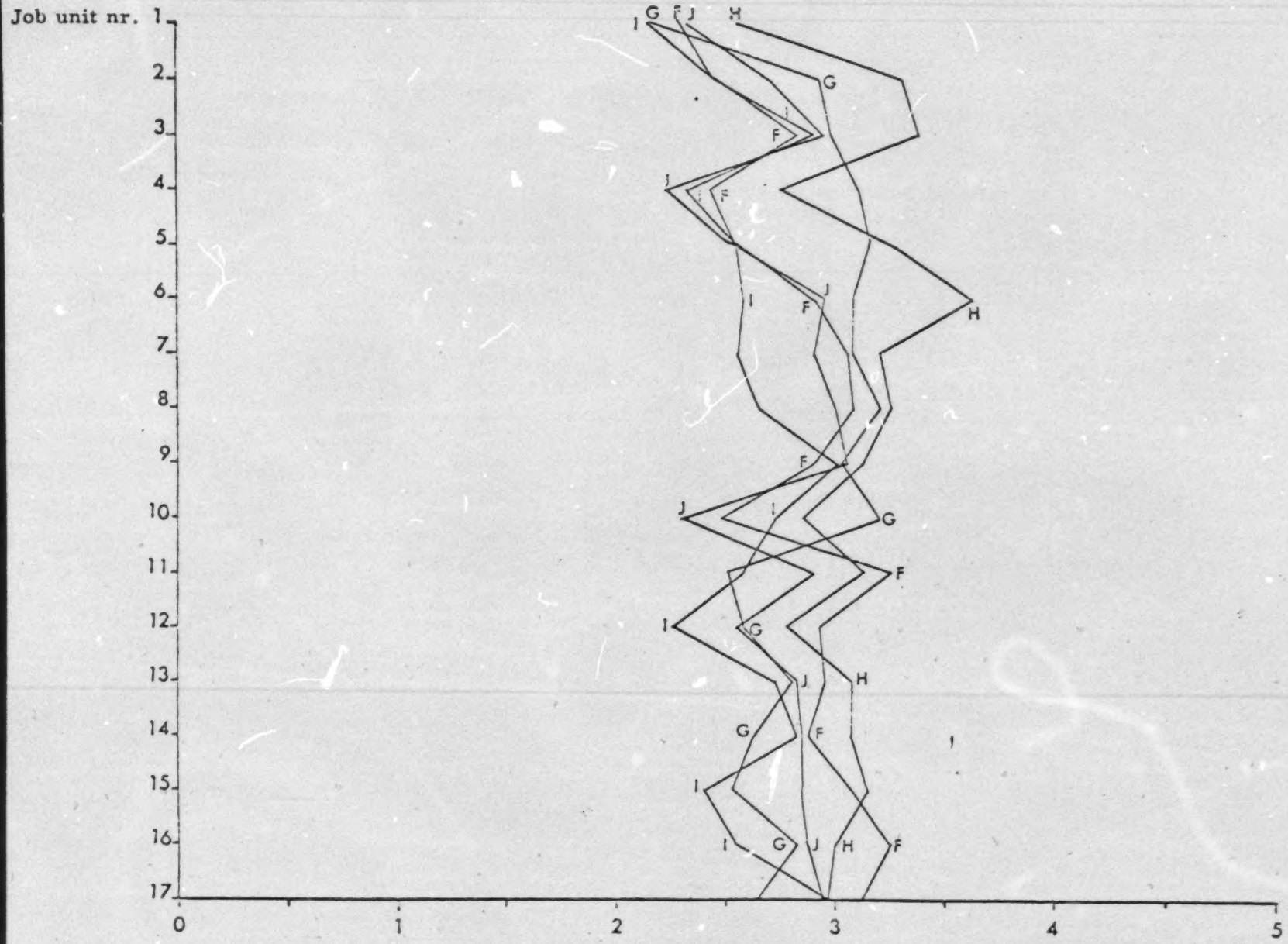

Fig. 5. Median values for the 17 job units in the five pedagogical aspects F-J

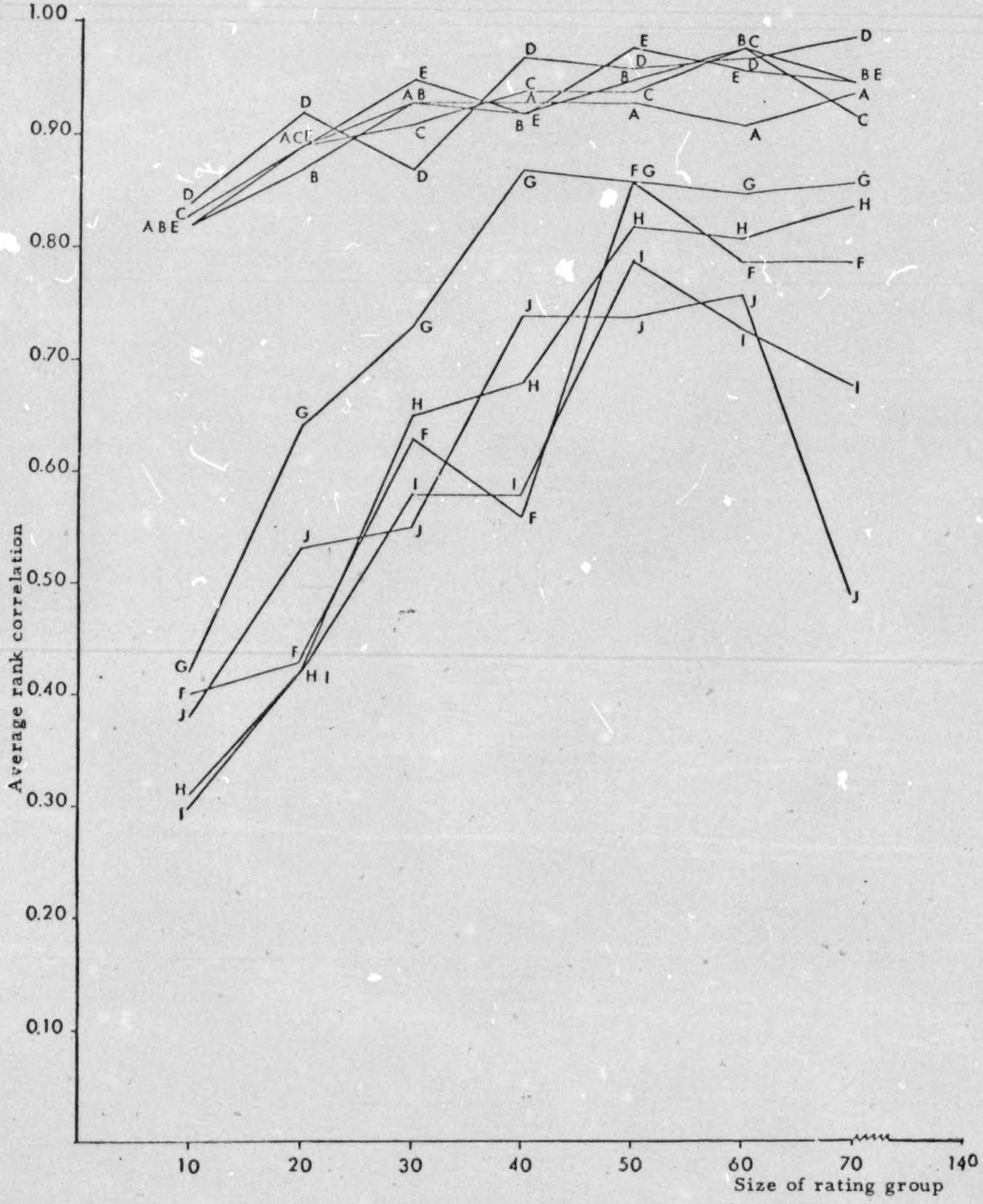

Fig. 6. The relation between the size of the rating group and the average rank correlation when structural comparisons are carried out between groups of the same size. The comparisons concern median series from the work-aspects A-E and the pedagogical aspects F-J

pedagogical aspects 0.42. The different judging aspects compared have thus given rather different median series with regard to their structure.

Structural comparisons between pedagogical and work aspects have been carried out by estimating rank correlations between the corresponding aspects in figure 1. All the rank correlations are negative and their absolute values are fairly high (see table II).

Tabel II. Structural comparisons between median series from the five work aspects and their corresponding pedagogical aspects

Comparison betseen aspects	Rank correlation
A-F	-0.73
B-G	-0.65
C-H	-0.30
D-I	-0.63
E-J	-0.48

The direction of the scales is such that negative correlations indicate that work units judged as being of less importance in the work aspects tend to be those with a low degree of natural, immediate feedback and vice versa. It is thus far from obvious how the results from judging different aspects should be combined and applied when planning the training under review. Had the job units giving a low degree of natural immediate feedback also been judged as important in the work aspects, the application situation would have been easier. This article ends, however, with a short presentation of one possible way of making a selective use of work descriptions when planning training.

APPLICATION OF RESULTS

For each judging aspect the different work units have been ranked from the lowest to the highest median value. In figures 7-11, where each job unit is identified by a number referring to the list on page 6-7 all the 17 job units are described with regard to rank number in a certain job aspect and in its corresponding pedagogical aspect.

As low rank numbers indicate that the work unit is important in one or another respect those units that have low ranks both for the work aspect and the pedagogical aspect are of primary interest. When constructing training programmes, designing teaching aids and planning the training process, for example setting up TWI instructions, checklists for diagnostic control and fitting in small group teaching and individual guidance,

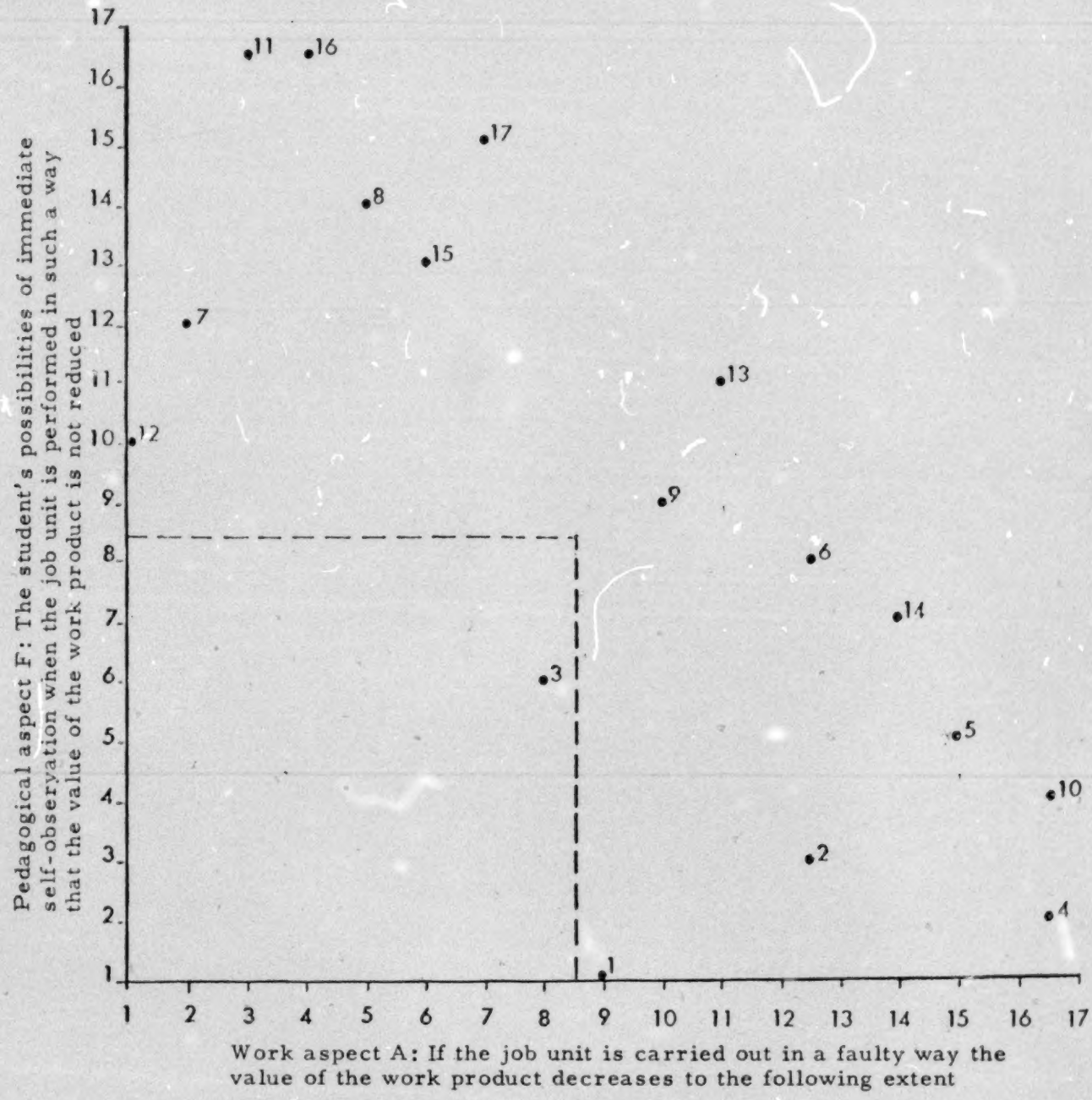
Pedagogical aspect F: The student's possibilities of immediate self-observation when the job unit is performed in such a way that the value of the work product is not reduced
Work aspect A: If the job unit is carried out in a faulty way the value of the work product decreases to the following extent
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
11 16 17 8 15 7 12 13 9 6 14 3 5 10 2 4 1

Fig. 7. Rank numbers for the 17 job units in aspects A and F

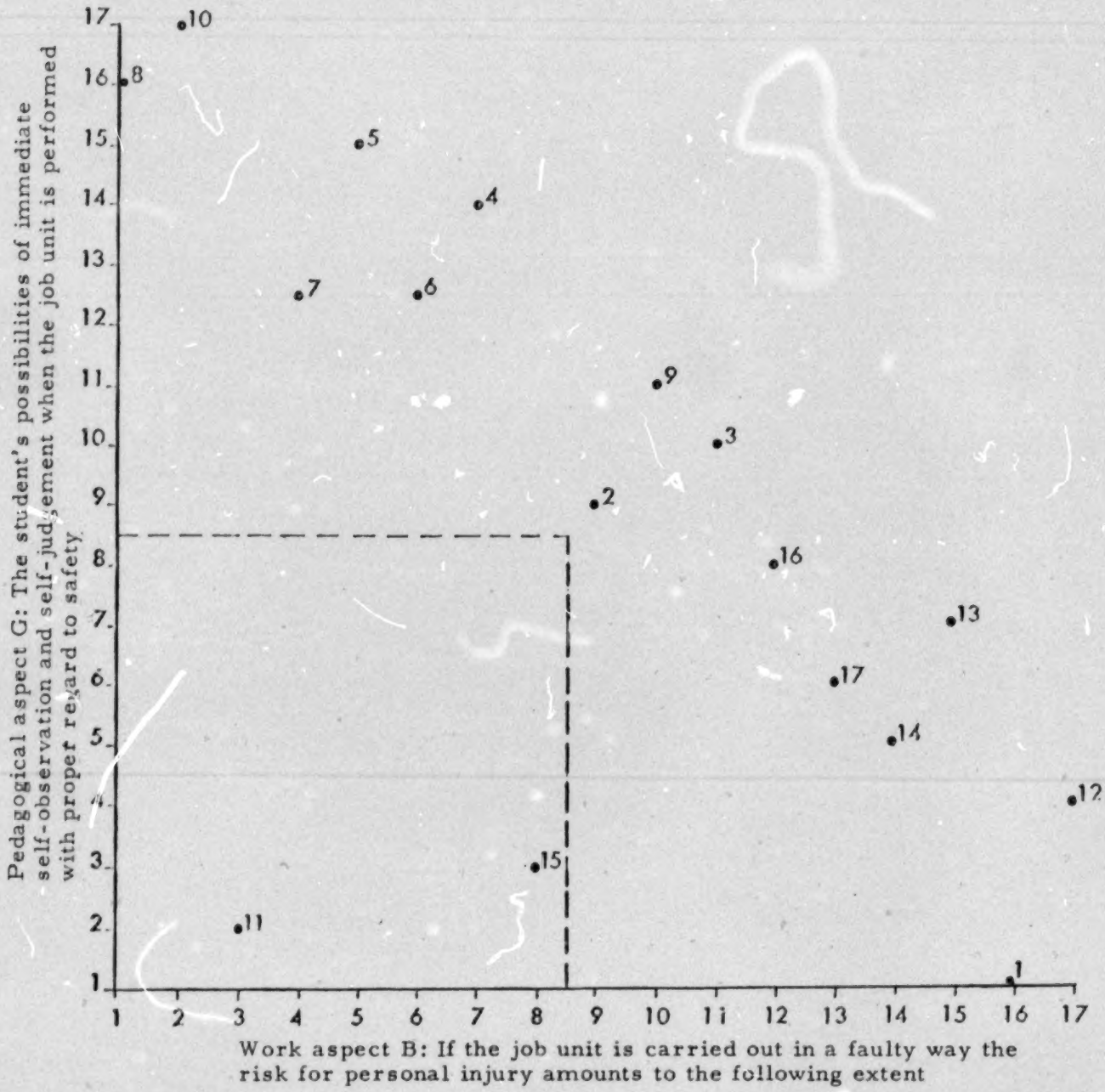
Pedagogical aspect G: The student's possibilities of immediate self-observation and self-judgement when the job unit is performed with proper regard to safety
Work aspect B: If the job unit is carried out in a faulty way the risk for personal injury amounts to the following extent
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
10 8 5 4 7 6 9 3 2 16 13 17 14 12 15 11 1

Fig. 8. Rank numbers for the 17 job units in aspects B and G

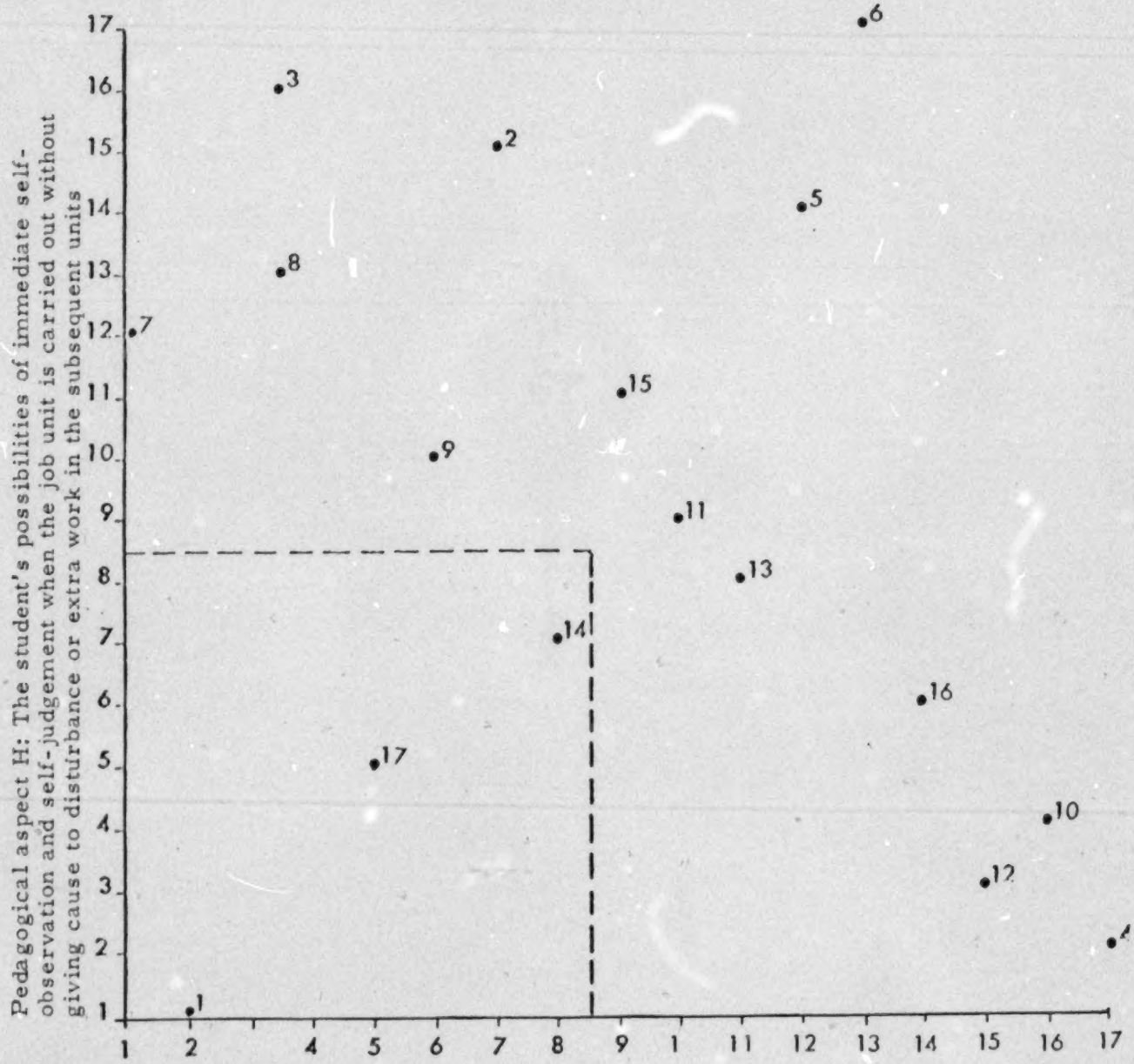
Pedagogical aspect H: The student's possibilities of immediate self-observation and self-judgement when the job unit is carried out without giving cause to disturbance or extra work in the subsequent units
Work aspect C: A faulty way of carrying out the job unit leads to disturbance or extra work under subsequent job units to the following extent
1 2 4 5 6 7 8 9 1 11 12 13 14 15 16 17
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

Fig. 9. Rank numbers for the 17 job units in aspects C and H

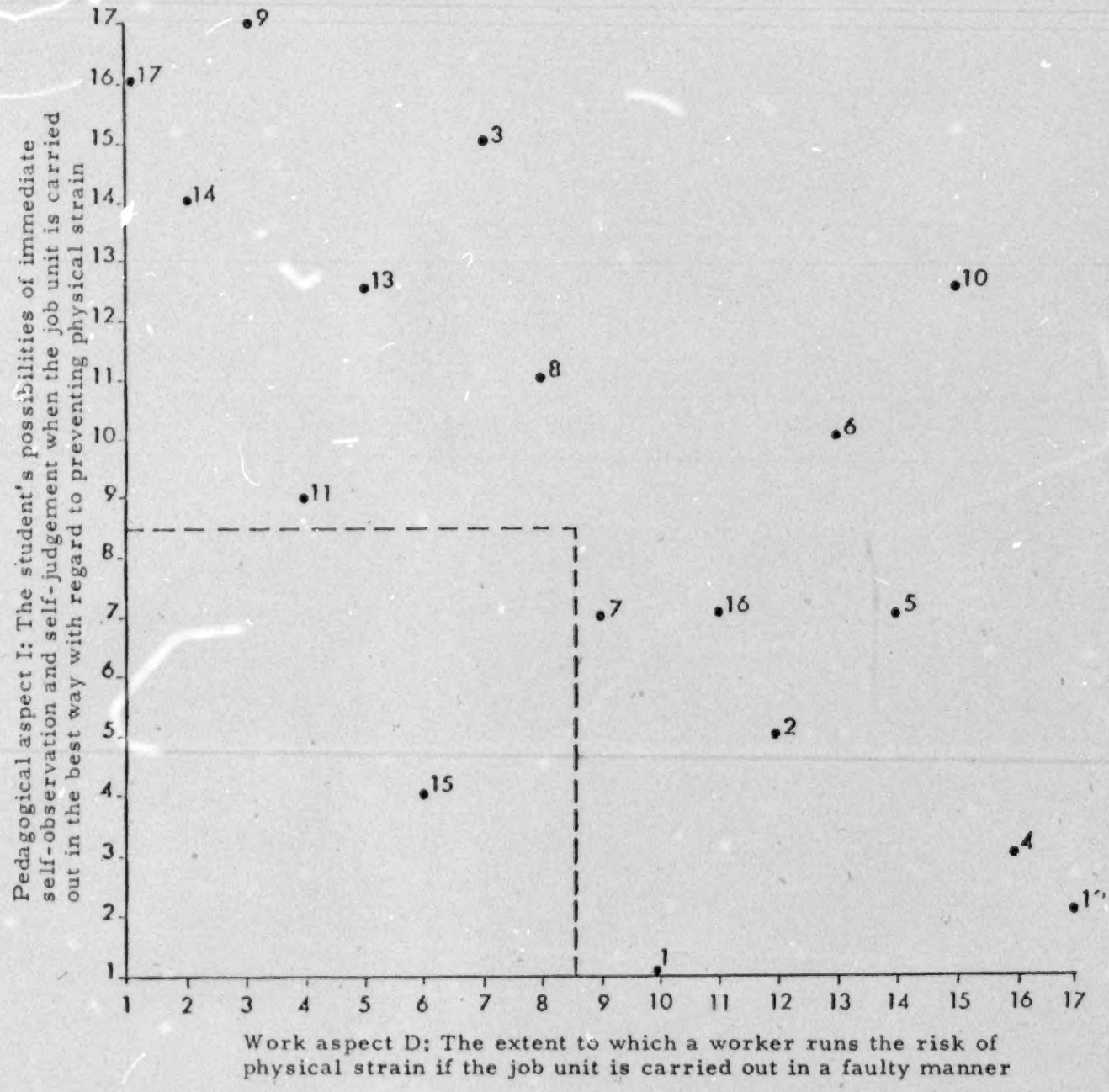
Pedagogical aspect I: The student's possibilities of immediate self-observation and self-judgement when the job unit is carried out in the best way with regard to preventing physical strain
Work aspect D: The extent to which a worker runs the risk of physical strain if the job unit is carried out in a faulty manner
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
9
17
3
14
13
10
8
6
11
7
16
5
2
15
4
1

Fig. 10. Rank numbers for the 17 job units in aspects D and I

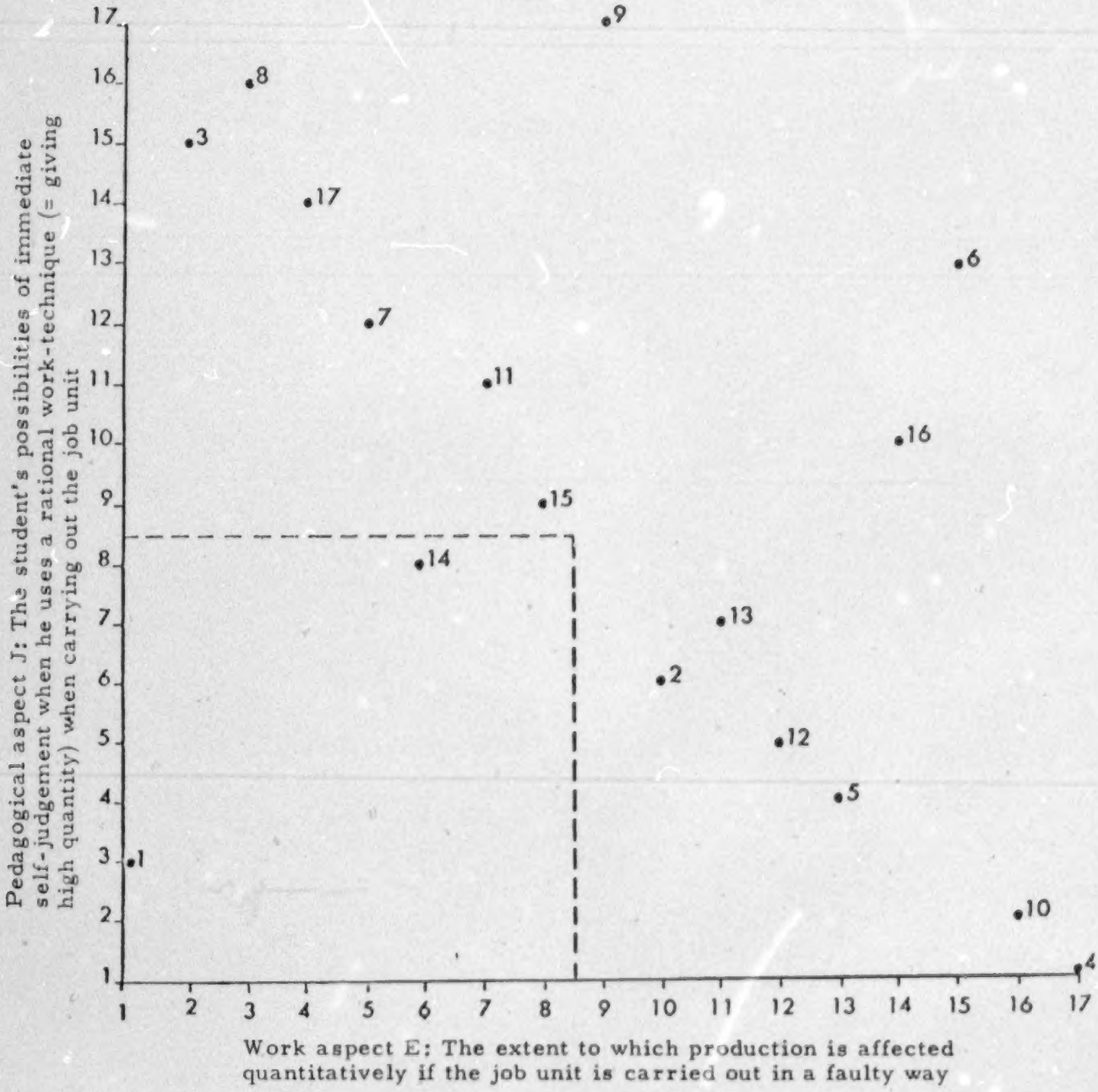

Fig. 11. Rank numbers for the 17 job units in aspects E and J

it is of interest to know which work units have the lowest coordinates in the aspect combinations presented in figures 7-11. The ordinal scales along the axes in figures 7-11 have therefore all been divided at rank number 8,5 as indicated by a dotted line and units with low coordinates are somewhat arbitrarily defined as those lying within the lower left quadrant limited by the dotted lines. For the five aspect combinations the following work units are in this way selected as critical both in the pedagogical and the work aspect.

1. Aspect combination A-F (quality demand - possibilities for natural feedback).

   Work unit nr. 3: To plan the felling direction of the single tree.

2. Aspect combination B-G (safety demands - possibilities for natural feedback).

   Work unit nr. 11: To trim the upper side of the trunk.

   Work unit nr. 15: To trim the under-side of the trunk.

3. Aspect combination C-H (planning demands - possibilities for natural feedback).

   Work unit nr. 1: To plan the felling of a group of trees.

   Work unit nr. 14: To move the trunk towards the place for the timber pile.

   Work unit nr. 17: To move and pile the timber.

4. Aspect combination D-I (ergonomical demands - possibilities for natural feedback).

   Work unit nr. 15: To trim the under-side of the trunk.

5. Aspect combination E-J (quantity demands - possibilities for natural feedback).

   Work unit nr. 1: To plan the felling of a group of trees.

   Work unit nr. 14: To move the trunk towards the place for the timber pile.

REFERENCES

Lord, F. & Novick, R. Statistical theories of mental test scores. Reading, Mass.: Addison-Wesley. 1968.

Mårdberg, B. & Baneryd, K. Psykologisk befattningsanalys. Stockholm: PA-rådet. 1971.

Sjödahl, L. Informationskällor vid sökning av utbildningsmål. Tidskrift för Yrkesutbildning, 1974, 55(8), 18-27.

OE 008 641

Department of
Educational and
Psychological Research
School of Education
Malmö, Sweden

Abstract card

Sjödahl, L. Choice of aspects for describing work in educational planning. Didakometry (Malmö, Sweden: School of Education), No. 51, 1976.

The aim of this paper is to suggest some descriptors when describing work in educational planning. A work operation, shortwood logging, has been analyzed into 17 units, which in turn have been rated in 10 aspects by 140 forestry teachers. Profiles are presented for each aspect based on the medians for the 17 units. Correlations between different aspects are presented and the report concludes with some suggestions for the application of the results.

Indexed:
1. Educational planning
2. Critical incident
3. Forestry training

25

Reference card

Sjödahl, L. Choice of aspects for describing work in educationa planning. Didakometry (Malmö, Sweden: School of Education) No. 51, 1976.

26